REMARKS

In response to the Office Action of December 17, 2004, Applicant respectfully requests reconsideration. Claims 1-24 were previously pending in this application. Claims 1-3 and 13-15 are amended herein. The application as presented is believed to be in condition for allowance.

Rejections under 35 U.S.C. §112

The Office Action rejected claims 1 and 13 under 35 U.S.C. §112, second paragraph, as purportedly being indefinite. Specifically, the Office Action asserts that "any system capable of detecting a signal will do so according to a 'rule' just from an operational standpoint. All systems operate on a rule, per se, and therefore the claim is considered to be indefinite."

Applicant has amended claims 1-3 and 13-15 to clarify that the at least one rule, "defines how the receiver operates to detect signals from the source when the receiver is configured according to the first method for detecting the signal." Applicant believes these amendments overcome the rejection of claims 1 and 13 under 35 U.S.C. §112. Accordingly, withdrawal of the rejection of claims 1 and 13 under 35 U.S.C. §112 is respectfully requested.

It should be appreciated that the amendments to claims 1-3 and 13-15 are made solely for the purpose of clarification and are not intended to alter the scope of the claims. Thus, these amendments raise no new issues that would require further search and/or consideration.

Summary of Embodiments Of Applicant's Invention

An example of one embodiment of Applicant's invention is described below to highlight some aspects of the invention. This embodiment is described primarily in Applicant's specification at page 19, line 16-page 20, line 10. It should be appreciated that the description below is merely an example of one of many embodiments that fall within the scope of Applicant's claims and is provided merely for the purpose of highlighting some aspects of Applicant's invention.

In some situations, it is desired to detect signals from emitters using a receiver (Applicant's specification, page 1, lines 16-32). However, when scanning for signals from a

large number of emitters (that may operate in different frequency bands) using the finite resources of one or more receivers, the capabilities of these receivers may not allow all of the frequency bands in which the emitters operate to be observed simultaneously (Applicant's specification, page 2, lines 3-5). However, there is a need to scan the frequency spectrum in an efficient manner to detect all of the signals of interest (Applicant's specification, page 2, lines 6-7).

Thus, in one embodiment of the invention a receiver scan strategy may be generated to enable efficient scanning of a set of emitters. When determining a receiver scan strategy which involves the detection of multiple emitters, the detection system may consider certain parameters for each emitter, such as at what time and what range the signals produced by the emitter should be intercepted and which emitters should take precedence in the scan strategy (Applicant's specification, page 19, line 26 – page 20, line 2). To accomplish this, rules may be defined which specify certain parameters for each emitter or emitter mode (Applicant's specification, page 20, lines 10-12). The rule may specify, for example, at what minimum range the emitter needs to be detected, the allowed probability of intercept of the emitter, the amount of time allowed to observe an emitter prior to detection, and/or any other suitable parameter (Applicant's specification, page 20, lines 10-15). A list of examples of parameters that may be specified in a rule are included in Applicant's specification at page 20, line 25 - page 22, line 5.

When computing the scan strategy, the rule or rules for a particular emitter may be used in computing the revisit time for that emitter (Applicant's specification, page 21, lines 15-17). The revisit time for an emitter refers to the time between observations of the frequency band in which the emitter operates. The revisit time for a particular emitter also depends on the detecting method (i.e., the hardware configuration) of the receiver (Applicant's specification, page 22, lines 20-30). Thus, for each available detecting method, the rules may define how the receiver operates (e.g., how often the receiver revisits a frequency band) when the receiver is configured according to the particular detecting method.

The foregoing summary is provided merely to assist the Examiner in appreciating various aspects of the present invention. The summary may not apply to each of the independent claims, and the language of the independent claims may differ in material respects from the summary

provided. The Examiner is requested to give a careful consideration to the language of each of the independent claims and to address each on its own merits, without relying on the summary provided above. Applicant does not rely on the summary to distinguish any of the claims of the present invention over the prior art, but rather, relies only upon the arguments provided below.

Rejections Under 35 U.S.C. §102

The Office Action rejected claims 1-10 and 13-22 under 35 U.S.C. §102 as purportedly being unpatentable over Rose (5,526,001). Applicant respectfully traverses this rejection.

The Office Action asserts that, "the claims, as best understood, are considered to be met by Rose et al...to disclose a system for detecting signals using at least one rule." Initially, Applicant notes that the Examiner refers to the claims "as best understood." Applicant assumes that the Examiner is referring to the purported indefiniteness with respect to the term "rule," as explained in the Office Action with respect to the rejections under 35 U.S.C. §112, second paragraph. This issue is addressed above. Applicant believes that the claims, as amended, are now clear in all respects. If the Examiner believes that there remains any further indefiniteness in the claims, he is respectfully requested to state these for the record.

Additionally, Applicant notes that, other than the blanket statement that Rose discloses a system for detecting signals using at least one rule, the Office Action does not provide any detail on which portions of Rose are believed to be relevant to each limitation of Applicant's claims. For example, the Office Action does not specify which portion of Rose is purported to disclose, "a first method for detecting a signal" and which portion of Rose is purported to disclose, "at least one rule." If the rejection is to be maintained, Applicant respectfully requests that the Examiner provide an explanation of how the reference is believed to anticipate Applicant's claims, with citation to the relevant portions of the reference.

Discussion of Rose (5,526,001)

Rose discloses a method of utilizing a bearing rate of change, or equivalently bearing differences, to estimate emitter geolocation (Col 4, lines 41-42). Once an emitter has been detected, multiple platforms are determined as well as multiple bearing differences between the detected emitter and a platform (Col. 5, lines 1-15). Rose is directed towards improving emitter geolocation estimation accuracy by reducing the effect of bias errors during the process of determining bearing differences (Col. 5, lines 15-20). Thus, the method disclosed in Rose is directed to a process which takes place after an emitter signal has been detected.

Claim 1

Claim 1 is directed to a method for detecting a signal from a source, using a receiver. The method comprises acts of determining a first method for detecting the signal and determining at least one rule that defines how the receiver operates to detect signals from the source when configured according to the first method for detecting the signal.

Claim 1 patentably distinguishes over Rose. As discussed above, Rose discloses a method for estimating an emitter geolocation once a signal has already been detected (Rose, Col. 4, lines 41-42). By contrast, claim 1 is directed to a method for *detecting* a signal. Therefore, Rose teaches a process which takes place *after* a signal has been detected, while claim 1 discloses a method for detecting a signal (e.g., locating the signal in the frequency spectrum). Rose does not teach a method for detecting a signal, as required by claim 1, but instead teaches a method of estimating emitter geolocation. Rose assumes that the signal is already detected (i.e., by a moving object), and is thus directed to using information about the rate of change of direction of the moving object to estimate the location of the emitter that generated the signal. Thus, claim 1 patentably distinguishes over Rose. Accordingly, it is respectfully requested that the rejection of claim 1 under 35 U.S.C. §102 be withdrawn.

Claims 2-10 depend from claim 1 and are patentable for at least the same reasons. Accordingly, it is respectfully requested that the rejection of claims 2-10 be withdrawn.

Claim 13

Claim 13 is directed to a computer-readable medium having instructions stored thereon that, as a result of being executed by a computer, instruct the computer to perform a method for detecting a signal from a source using a receiver. The method comprises acts of determining a first method for detecting the signal and determining at least one rule that defines how the receiver operates to detect signals from the source when configured according to the first method for detecting the signal.

As should be appreciated from the discussion above, Rose teaches a process which takes place *after* a signal has been detected, wherein Applicant discloses a method for detecting a signal. Rose does not teach a method for detecting a signal, as required by claim 13, but instead teaches a method of estimating emitter geolocation after a signal has been detected. Thus, claim 13 patentably distinguishes over Rose. Accordingly, it is respectfully requested that the rejection of claim 13 under 35 U.S.C. §102 be withdrawn.

Claims 14-22 depend from claim 13 and are patentable for at least the same reasons. Accordingly, it is respectfully requested that the rejection of claims 14-22 under 35 U.S.C. §102 be withdrawn.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
Anthony J. Gounalis, Applicant

By: Randy J. Pritzker

Randy J. Pritzker, Reg. No. 35,986
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
Telephone: (617) 646-8000

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